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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,949	12/04/2003	Brian L. Gordon	1677(Touchstone)	7390
48642	7590	02/07/2006	EXAMINER	
PHILIP D. LANE P.O. BOX 79318 CHARLOTTE, NC 28271-7063			JOHNSON, JONATHAN J	
			ART UNIT	PAPER NUMBER

1725

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/727,949

Applicant(s)

GORDON ET AL.

Examiner

Jonathan Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause et al. (5,886,313) in view of Joseph (5,968,671). Krause et al. teach fabricating structural members by providing a planar surface addressed by a compaction device (Figure 1, item 6); angularly feeding a tape-like workpiece at the point of contact between the mandrel surface and the compaction device so as to form a junction (Figure 1, items 8 and 9); impacting the tape-like workpiece with a laser beam at the junction to at least one of the opposing surfaces (Figure 1, item 10); where the laser is stacked multibar infrared laser (col. 6, ll. 45-67); that uses optical lenses (col. 7, ll. 40-67); and uses preheaters of IR lamps (figure 14, item 40); and simultaneously with the impacting of the laser beam, relatively moving the surface or the compaction device so as to take up the tape-like workpiece and pressing the compaction device against the tape-like workpiece so as to cause consolidation of the tape-like workpiece with previously applied layers of the tape-like workpiece on the surface (Figure 1, item 6). Joseph teach joining a metal matrix prepreg tape having opposing surfaces at the point of contact with a layer of brazing material in between (col. 5, ll. 40-50 and col. 1, ll. 31-35) where the matrix of aluminum is selected from the group consisting of carbon, boron, ceramic and glass (col. 3, l. 64

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and col. 1, l. 21) where the fiber comprise aluminum oxide (col. 2, l. 19) and where the matrix comprises pure aluminum having aluminum oxide fibers embedded therein (col. 2, ll. 19-21 and col. 1, ll. 31-35) and the tape of 0.5 inches (col. 2, l. 51) and having a sheet of two layers which results in a width of about 0.15 inches thick (col. 2, ll. 59-62). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Krause et al. to utilize joining the metal matrix prepreg tape in order to obtain a reliable composite for use in the aerospace industry by achieving a strong connection between the coating material and the base material (see Joseph col. 1, ll. 3-27 and Krause et al. col. 1, ll. 10-20).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krause et al. (5,886,313) and Joseph (5,968,671) as applied to claim 1 and further in view of Izumi (US 5,289,966). Krause et al. teach the use of induction heaters but not IR reflector lamps (col. 13, ll. 1-10). Izumi teach IR reflector lamps for preheating (col. 10, ll. 40-55). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Krause et al. to utilize IR reflector lamps in order to effectively preheat the substrate (see Izumi col. 10, ll. 40-60).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krause et al. (5,886,313) and Joseph (5,968,671) as applied to claim 1 and further in view of Jeantette (US 6,046,426). Krause et al. teach the use of an optical pyrometer to provide a temperature feedback information to control the laser (col. 8, ll. 9-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Krause et al. to utilize a

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pyrometer in order to ensure the proper laser power to the workpiece (see Jeantette col. 8, ll. 9-26).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krause et al. (5,886,313) and Joseph (5,968,671) as applied to claim 1 and further in view of Ishikawa et al. (4,779,563). Ishikawa et al. teach apply vibratory energy to the prepreg tape prior to entry into the junction at a frequency between 1000 and 25000 vibrations per minute (col. 5, l. 10 and col. 1, l. 27). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined invention of Krause et al. and Joseph to utilize the claimed vibration frequency in order to ensure the metal fully penetrates between the fibers (see Ishikawa et al. col. 1, ll. 10-25).

Response to Arguments

Applicant argues Krause is directed to an apparatus with two rollers for bonding metal plates using opposing rollers. The examiner agrees. Applicant goes on to argue that Krause does not teach the claim1 limitation of a "planar surface." The examiner disagrees. During patent examination, the pending claims must be "given the broadest reasonable interpretation." Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). In the instant case, allwords.com defines "planar" as "lying in a single plane." In applying the Prater test by giving the claim its broadest reasonable interpretation, it is

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the examiner's position that the area where the two rollers meet lies in a single plane to yield a planar surface.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a completely flat or straight surface) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

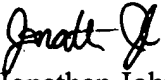
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 571-272-1177.

The examiner can normally be reached on M-Th 7:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jonathan Johnson
Primary Examiner
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